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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,961	12/13/2001	Susan Marie Cox	ROC920010225US1	1968
31647	7590	05/17/2006	EXAMINER	
DUGAN & DUGAN, P.C. 55 SOUTH BROADWAY TARRYTOWN, NY 10591			PAYNE, DAVID C	
			ART UNIT	PAPER NUMBER

2613

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/021,961

Applicant(s)

COX ET AL.

Examiner

David C. Payne

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim(s) 1-6, 10, 12-16, 17-22, 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Seidel US 4383316 (Seidel).

Re claim(s) 1, 12, 17, 23

Seidel disclosed

An inverse multiplexing system (Figure 3) multiple transmitters (preceding 12) transmits data over either one bidirectional fiber link (15) or multiple unidirectional fiber links (col./line(s): 2/35-40). Each video signal stream (sub stream) is marked with a channel ID that is used to identify the particular signal. The streams are demultiplexed (13 of Figure 3) into lower speed sub streams and then multiplexed (27 of Figure 3).

Re claims 2-6, 13-15, 18-21, 24-26

Seidel disclosed using sequence number or markers in the individual streams to identify the data units for reassembly (col./lines: 2/30-45).

Re claim(s) 10, 16, 22, 27

Seidel disclosed

the multi-channel communication link system as previously shown including using optical fibers (col./line(s): 1/45-60).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim(s) 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seidel US 4383316 (Seidel) in view of Widmer US 5,648,776 (Widmer).

Re claims 7 and 8, Seidel disclosed the aforementioned invention but does not disclose where comma-sync characters are used.

Widmer disclosed the use of comma-sync characters in a serial bit detection system, see col./lines: 6/55-65. It would have been obvious to use the comma-sync characters in the Seidel system for synchronization as this is a IEEE standard and

used because it is not a widely used character.

6. Claim(s) 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seidel US 4383316 (Seidel) in view of Morikura et al. US 5,539,846 (Morikura).

Re claim(s) 11

Seidel disclosed

the multi-channel communication link system as previously shown but does not disclose using 8b/10b encoding. Morikura disclosed using 8b/10b encoding, see col./lines: 2/55-60. It would have been obvious to one of ordinary skill in the art at the time of invention to use 8b/10b encoding in the Seidel invention since adding 2 bits as this code does helps increase synchronization, as discussed in Morikura, see col./lines: 1/25-30.

7. Claim(s) 9 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seidel US 4383316 (Seidel) in view of Hutchison et al. US 5,408,473 (Hutchison).

Re claim(s) 9 and 28

Seidel disclosed

the multi-channel communication link system as previously shown but does not disclose dividing the stream along half-words. Hutchison disclosed a transmitted serial stream that is demultiplexed onto two channels by sending sequential blocks of equal number of bits over alternate channels (see Figure 2, col./lines: 2/48-52). These 4 bit transmissions represent half the word unit of the invention. It would have

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been obvious to one of ordinary skill in the art at the time of invention to divide the transmissions in this manner given that a minimum implementation of either invention would require at least two parallel transmissions and therefore evenly divide the transmission data units over the physical links.

8. Claim(s) 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seidel US 4383316 (Seidel) in view of Hutchison et al. US 5,408,473 (Hutchison).

Re claim(s) 29

Seidel disclosed

the multi-channel communication link system as previously shown but does not disclose dividing the stream along half-words and optical fibers. Hutchison disclosed a transmitted serial stream that is demultiplexed onto two channels by sending sequential blocks of equal number of bits over alternate channels (see Figure 2, col./lines: 2/48-52). These 4 bit transmissions represent half the word unit of the invention. It would have been obvious to one of ordinary skill in the art at the time of invention to divide the transmissions in this manner given that a minimum implementation of either invention would require at least two parallel transmissions and therefore evenly divide the transmission data units over the physical links.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rennert et al. US 2003/0086503, Huang US 5859904, Giorgio

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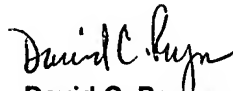
H1175, Ratnarajah US 6980600 B1, Gavrilovich US 5771229, Gilbert US 6058433 all disclosed diving a data stream and sending over lower parallel sub streams.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (571) 272-3024. The examiner can normally be reached on M-F, 7:00a - 4:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dcp


David C. Payne
Primary Examiner
AU 2613